

Medical management of frailty: confessions of a gnostic

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Abstract

GERIATRIC MEDICINE is concerned chiefly with the care of frail elderly people, especially when they become ill. Physicians face special challenges in dealing with such patients, who tend to have multiple interacting medical and social problems, impaired function, altered pharmacokinetics and pharmacodynamics, atypical disease presentations and to be affected by polypharmacy. The joy of geriatrics is in systematically meeting each of these challenges, but the techniques that geriatricians use to do so must not be kept secret. More must be done to encourage all physicians to use these techniques in caring for frail elderly people who are ill.

Résumé

LA MÉDECINE GÉRIATRIQUE porte principalement sur le soin des personnes âgées frêles, surtout lorsqu'elles tombent malades. Les médecins ont des défis spéciaux à relever face à de tels patients qui ont tendance à avoir de multiples problèmes médicaux et sociaux agissant les uns sur les autres, des déficits fonctionnels, une pharmacocinétique et une pharmacodynamique modifiées et des présentations morbides atypiques. Elles ont aussi tendance à être touchées par la polypharmacie. La satisfaction qu'offre la gériatrie, c'est de relever systématiquement chacun de ces défis, mais il ne faut pas garder le secret sur les techniques que les gériatres utilisent à cette fin. Il faut faire davantage pour encourager tous les médecins à utiliser ces techniques pour traiter des personnes âgées frêles qui sont malades.

One of the chief heresies facing the early Christian church was gnosticism: the belief that salvation was available only to those with secret knowledge.¹ (The orthodox view held that salvation occurred by God's grace, which was open to any believer.) As a geriatrician, I often feel like an inadvertent gnostic: despite my best efforts, I confess to having less success than I would like in imparting the secrets of caring for frail elderly people who are ill.²

I am not alone. My colleagues share this shame, and our sect has a long history of public confession.³⁻⁵ My purpose in this article, however, is not to confess but to proselytize.

Secrets of the trade

It is a deeply felt joy to care for someone who is ill. When patients recognize that they are ill, and when the diagnosis is straightforward, a treatment is available and the possibility of improvement is clear, the physician's experience is a greatly rewarding one. However, some patients defy this happy model of care: these are the "gomers," the "poor historians," the "social admissions." Less pejoratively, they are usually frail.

Frail elderly people are those whose care is made complex by multiple interacting medical and social problems, who are vulnerable to common stressors and who are disabled or at high risk of disability.⁶ Such patients frustrate the physicians' expectations: they often recognize that they are ill only in a vague way;^{7,8} their illnesses are often unrecognized by the uninitiated;^{3,9,10} treatment is complex and more than just medical; and by standard measures (especially length of stay) success can seem equivocal.



Body and mind

Corps et esprit

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But not to us gnostics. We know the secrets of success and thus the joy of geriatrics. Our interest in frail patients derives both from the magnitude of their need and from the fact that we have the special skills to meet the challenges they present.

History-taking

It is often not possible to obtain even the usual, abbreviated version of the mythical "complete history" from frail elderly patients. This is because their disease presentation is frequently "atypical."⁷ A little background is needed to understand this term. For a long time geriatricians recognized what Isaacs called the "geriatric giants" of incontinence, immobility, impaired balance, impaired cognition and iatrogenic illness.¹¹ For a while, this was also called "silent" disease presentation, but as recognition grew that these patients were hardly silent, the term "atypical" was substituted.¹² Clearly, however, a new adjective is needed: in one study delirium, falls, immobility and incontinence were found to be the most common disease presentations in frail elderly patients.⁷ Thus, atypical presentations of acute illness are, in fact, typical in this group. "Sensitive, but not specific, to acute illness" is a more precise (albeit wordy) way of describing delirium, falls, immobility and incontinence in elderly patients.

Frailty is more than the sum of its parts. At its heart, it is a failure to integrate responses in the face of stress; hence the typically atypical disease presentations are related to functions that require integration of many systems: higher order cortical processing, staying upright, maintaining balance and walking. Failure to maintain these complex integrated activities can result in delirium, falls or immobility. Acute incontinence resulting from problems unrelated to the urinary tract is generally seen in combination with these problems.

Thus, the person who is unable to give a clear account of the last few days may well be cognitively impaired. This is a medical sign. If this impairment is acute or acutely worse than usual, the patient is delirious, and delirium is a common presentation of illness in frail elderly people. Similarly, falling is not normal for an elderly person, nor is not being able to get out of bed. In each case, the patient is signalling that he or she is ill, and the process of diagnosis can begin.

A related piece of secret knowledge, which comes up in the history, is to understand how the patient is functioning currently and how that has changed. A decline in the ability to perform personal care or to walk short distances is not just a sign of illness; it has been shown to be of more importance in predicting adverse hospital outcomes than age or traditional measures of illness severity.⁷ This is apparently one of the best kept secrets. Although it is com-

mon for house staff to be able to recite current laboratory values for patients newly admitted to hospital, it is rare for them to know whether these same patients can brush their teeth now or whether they were able to do so 2 weeks ago.

Proper history taking also turns up a third secret domain, namely the recognition of polypharmacy. Polypharmacy has complex determinants¹³⁻¹⁶ and has no easy solution. Partial solutions include being aware of existing medications before new ones are started, treating to specific endpoints, periodically reassessing medications and just plain better doctoring. In addition, patients might well be educated to ask their physicians, when presented with a new prescription, "Is this in addition to, or instead of, the pills I am taking now?"

The physical examination

The physical examination in geriatric medicine has only a few secrets. That it is a high-yield process (most patients have many signs) that can add much to a nonspecific history is one of the true joys of geriatrics. To the extent that there are secret manoeuvres, however, the most valuable is to get the patient, to the best of his or her ability, to sit up, transfer, stand and walk.^{17,18} Another high-yield procedure is to take the patient's blood pressure lying and sitting, which provides important clues to the status of hydration and autonomic function, both of which are often transiently impaired when frail elderly patients become acutely ill. Similarly, observing the patient mimic certain manoeuvres of basic self care is very helpful in planning care and assessing outcomes. For bedridden patients, a meticulous examination of pressure points is another useful and apparently secret skill.

What is largely private knowledge about the examination is the systematic assessment of those factors which, in addition to illness, make people frail. This is the process known as comprehensive geriatric assessment;¹⁹ its implementation has been demonstrably successful in a number of contexts.^{20,21}

Comprehensive geriatric assessment exists in many forms. One form includes systematic assessment of cognition, mood, communication, mobility and balance, elimination, function, nutrition, and social and environmental resources. Although it sounds daunting, such an inventory can often be completed in less than 30 minutes and considerably shortens the time needed for standard history-taking and examination. Frailty is determined by many factors and thus requires multifactorial assessment. Attention must be paid to both medical and social factors, with an eye to the manner in which these factors interact to impede function. The product of the history, physical examination and comprehensive geriatric assessment is the problem list, which guides specific interventions.



Investigations and diagnosis

Sometimes even textbooks of geriatric medicine keep the approach to investigations hidden by overwhelming the reader with exhaustive lists of possible causes of delirium, falls or immobility. The secret to diagnosing delirium, for example, in frail elderly people is to think of frailty as the predisposing factor and acute illness as the precipitant. When the frail person become acutely ill, it is simply with the things that generally cause illness in all elderly people. This is likely to be medication problems (including problems with over-the-counter medications, alcohol or both), infections, congestive heart failure, metabolic abnormalities, some combination of these factors or something else. There is no need to start looking for the "something else" until the common causes have been investigated.

Thus, although the list is in theory tremendously long, in practice it boils down to a few items with which physicians are familiar. What is less familiar is recognizing these presentations as indicators of acute illness.²

A related secret is that differential diagnosis applies across the disease presentations. This is powerful knowledge: delirium is not usually a "neurologic" problem (in the manner of focal brain abnormalities, subarachnoid hemorrhage or meningitis).⁷ Falls are usually not associated with loss of consciousness or with epilepsy or dysrhythmia, and immobility is not most commonly due to neurologic or musculoskeletal disorders.⁷ Even more important, when these syndromes are system specific, the history or physical examination usually point to the specific system, e.g., patients whose falls are due to treatable dysrhythmias usually faint. The routine work-up therefore includes, after the history, examination and comprehensive geriatric assessment, a complete blood count, electrolyte, thyroid, liver function, calcium and albumin tests, urinalysis and chest radiography. In the absence of localizing signs, a CT head scan has a very low yield in delirious patients, beyond identifying predisposing factors. As patients with delirium often have a limited ability to cooperate, neuroimaging studies are often compromised. Ensuring cooperation by medications often only adds to disorientation, and thus neuroimaging need not be an initial investigation in the absence of specific signs or other indications, such as a recent fall or head injury, or worsening level of consciousness.

Treatment

Treatment commonly involves medications (starting, stopping or both). In frail elderly patients there are complex alterations of pharmacokinetics and pharmacodynamics. The response to this complex challenge is, however, fairly straightforward. For most frail elderly patients and for most drugs, the secret is simply a matter of start-

ing low and going slow. Just as important, it should be remembered that the abrupt discontinuation of medications in an effort to "treat" polypharmacy can be hazardous.

A secret that geriatricians sometimes keep even from themselves is that the problem list is merely the starting point for intervention and not an end in itself. (If you find yourself playing the "my problem list is longer than yours" game, you are guilty of confusing means with ends.) Knowing what to do with the many problems discovered by the assessment process is the very art of geriatric medicine. It nevertheless helps to distil from these problems a few areas in which interventions will be carried out and to set precise goals for treatment. Specifying both the current state and a range of plausibly better-than-expected and worse-than-expected outcomes in a process known as goal attainment scaling are effective methods of planning care and measuring the outcomes of intervention.^{21,22}

Tracking the progress of interventions can be difficult, especially in patients with atypical disease presentations. Consider, for example, a frail elderly patient with delirium who is afebrile, not dyspneic, has no inspiratory chest pain and no leukocytosis, but who nevertheless is discovered to have pneumonia. Tracking the usual clinical signs is impossible in such a patient. Yet it is clearly possible to tell whether the patient is better or worse. One secret of geriatricians is the careful tracking of mobility and balance.¹⁷ In general, as patients get better they become more mobile, and as they get worse they become less mobile. This mobility can be precisely described, as in the observations "2-person hands-on assist for transfer" or "bedridden, but moves off pressure points." It is also hierarchical: improvement can be seen in terms of a trajectory, in which each day is compared with the day or 2 before. A precise guide to tracking these changes has been described.¹⁷

Why have geriatricians kept this knowledge secret?

Why has this information not been made more widely available? The lack of a specialized terminology is partly to blame: sometimes the principles seem so straightforward that it is hard for physicians to realize that they have learned anything. In teaching students and residents it is often possible to spend a few minutes at the beginning of a case discussion systematically exposing what needs to be known, but such techniques of close questioning, as helpful as they are, are hardly acceptable in the setting of continuing medical education. Sometimes even geriatricians are not aware of what makes their contribution unique, and the result can be a very precise "internal medicine of old age" approach in which the specialized intervention appears to amount largely to reliance on a multidisciplinary team. For the physician in a traditional practice, with



out access to an array of other practitioners, the secret of having a multidisciplinary team at your side will have little relevance. The result of the apparent accessibility of geriatric medicine is paradoxical: specialized language often masks what must be done, but perhaps it would serve to draw attention to this information. Alternately, perhaps we could just learn to speak more persuasively.

Challenges

Caring for frail elderly people who are ill is often perceived as a frustrating task, but it need not be so and indeed has been demonstrably successful in several studies,²³ including Canadian ones.^{24,25} The joy of geriatrics is in understanding what makes this care challenging and in knowing how to respond to its challenges. Although geriatricians are chiefly concerned with frail patients, this cannot be a proprietary claim. Nevertheless, the presence of any of the conditions or challenges discussed in this article might prompt referral to a geriatrician. As our population ages, it is vital that we equip all physicians caring for adults with the tools to respond appropriately to such problems, for our sake as well as that of our patients.

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